



RECEIVED
CENTRAL FAX CENTER

MAY 19 2004

OFFICIAL

RESPONSE TO OFFICE ACTION DATED 11/19/2003

To: Mail Stop RCE
Commissioner for Patents and Trademarks
P.O. Box 1450
Alexandria, VA. 22313-1450

From: Michael G. Smith
Reg. 45,368
Ramirez and Smith
1090 Vermont Ave. NW., #800
Washington, DC. 20005
(202) 595-1444 x2

Application: 09/830,279
Title: TUNING APPARATUS FOR STRINGED INSTRUMENT
Filing Date: Oct. 23, 2001
Art Unit: 2837
Examiner: Kimberly Lockett
Phone: 571-272-2067
Fax: 571-273-2067
Date: May 19, 2004

Kimberly Lockett
Art unit 2837

Application: 09/830,279

5/19/2004

1 of 11

CLEAN VERSION OF CLAIMS

1
2 Claim 40 A stringed musical instrument comprising:
3 an elongated neck,
4 a body attached to one end of said neck,
5 a tremolo pivotably mounted on said body,
6 a plurality of strings with a first end and a second end,
7 on said neck, a first critical point on at least one of said strings,
8 said tremolo further comprising:

9 bridge elements forming a support and a second critical point for at least

10 one of said strings,

11 a string anchor engaging said second end of said at least one of said strings,

12 a base plate,

13 a spring, and

14 counter springs with a first end and a second end, said first end of said

15 counter springs connected to said body and said second end of said

16 counter springs secured to said spring for counter balancing the

17 tension of said at least one of said strings,

18 wherein said base plate and said spring comprise:

19 a unitary component formed from a single folded or bent plate

20 material with a base plate portion and a spring portion so that said unitary

21 component is connected directly to the springs.

22
23 Claim 41 An apparatus of claim 40 wherein said string anchor is located in said
24 portion.

25 Claim 42 An apparatus of claim 41 wherein said string anchor comprises at least
one string passageway within said spring portion.

Application: 09/830,279

2 of 11

5/19/2004

1 Claim 43 An apparatus of claim 42 wherein said base plate portion comprises at
2 least one string hole for threading said at least one of said strings and said at least one
3 string passageway is aligned to said openings in said base portion.

4 Claim 44 An apparatus of claim 40 wherein said base plate portion is formed to
5 create at least one tier for displacing the height of at least one said bridge elements relative
6 to said body.

7 Claim 45 An apparatus of claim 40 wherein said tremolo further comprises a
8 fulcrum tremolo.

9 Claim 46 An apparatus of claim 40 wherein said unitary component has at least
10 one reinforcement arranged between said base plate portion and said spring portion.

11 Claim 47 An apparatus of claim 46 wherein said unitary component is formed to
12 create said at least one reinforcement.

13 Claim 48 An apparatus of claim 40 wherein said tremolo further comprises a
14 macro-tuner.

15 Claim 49 An apparatus of claim 40 wherein said tremolo further comprises a
16 global-tuner.

17 Claim 50 An apparatus of claim 45 wherein said fulcrum tremolo further
18 comprises a bearing for adjustably mounting said fulcrum tremolo on said body for pivotal
19 displacement and said bearing comprises at least a portion of a ball bearing surface.

20
21
22
23 Application: 09/830,279

5/19/2004

3 of 11

1 Claim 51 An apparatus of claim 42 wherein said tremolo further comprises a
2 global-tuner.

3 Claim 52 An apparatus of claim 44 wherein said tremolo further comprises a
4 macro-tuner.

5 Claim 53 An apparatus of claim 44 wherein said tremolo further comprises a
6 global-tuner.

7
8 **AMENDMENTS**

9
10 **In the Claims**

11 Claims 40-53 are currently pending.

12 Claims 54-59 are canceled without prejudice.

13 Claims 40-43, 45-53 are amended without prejudice.

14 Accordingly, claims 40-53 are pending.

15
16 **Claim Listing under 37 C.F.R. 1.121(c):**

17 Claims 40-53, now pending, are submitted below in accordance with 37 C.F.R.
18 1.121(c).

19
20
21
22
23 Application: 09/830,279

4 of 11

5/19/2004